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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/657,890	09/09/2003	J. Randall Hall	H&S-L	2638

7590 10/04/2006

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EXAMINER
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ADDISU, SARA

ART UNIT	PAPER NUMBER
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3722

DATE MAILED: 10/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

*Supplemental*  
**Notice of Allowability**

Application No.

10/657,890

Examiner

Sara Addisu

Applicant(s)

HALL, J. RANDALL

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/16/06.
2. ☒ The allowed claim(s) is/are 2-4, 6-10, 12-19, 21-23, 25-40.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 6/16/06
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

*Monica S. Carter*  
MONICA CARTER  
SUPERVISORY PATENT EXAMINER

## DETAILED ACTION

### EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Hudak, Jr. on 7/19/06.

The application has been amended as follows:

- Claim 2, line 1 recites, "....according to claim 24 23". And line 3 recites, ".. combination thereof to a ~~predetermined~~ depth measured from the tube end".
- Claim 3, line 1 recites, "....according to claim 24 23". And line 3 recites, ".. milling head to a ~~predetermined~~ depth measured from the tube end".
- Claim 4, line 1 recites, "....according to claim 24 23". And line 4 recites, ".... Through which a the securing element...".

Claim 8, line 2 recites, ".. .. a beveling step is performed on the tube end with a second milling head...".

- Claim 24 has been cancelled such that it is included in claim 23. Claim 23 now recites:

A method for preparing a metal tube end, comprising the steps of: providing a rotary milling tool comprising a milling head adapted to at least remove a

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predetermined amount of tube material from an outer diameter surface of the metal tube, wherein the milling head comprises a cylindrical body having an annular recess, said body connected to the rotary milling tool, and one or more cutting blades connected to a cutting blade support of said body by a securing element, each said blade disposed circumferentially around the rotational axis of the milling head, each said blade disposed circumferentially around the rotational axis of the milling head, each said blade having a cutting edge defining an annular cutting sweep having an inner radius that removes material from the outer diameter surface of the tube in an amount of from about 2% up to about 25% of a radial thickness of the tube, and an outer radius at least equal to said tube outer diameter, wherein the said one or more blades have a lower cutting edge that extends below a lower end of said milling head body, the rotary milling tool further including an arbor and a securing device attached to the arbor; securing the arbor of the milling tool on the tube with the securing device; and milling the outer diameter surface of the tube with the milling head and removing tube material from the outer diameter surface of the tube while the arbor remains stationary in the tube while the milling head rotates around the arbor.

- Claim 27, line 2, the word "a" is replaced by "the" and the word "an" is replaced by "the" such that it recites, "...tube is removed to the depth of at least 0.25 inch measured from the end of the tube".

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- Claim 28, lines 2 and 3, the word "a" is replaced by "the" and the word "an" is replaced by "the" such that it recites, "...tube is removed to a the depth of at least 0.25 inch to about 1.5 inches measured from ~~an~~ the end of the tube".
- Claim 30, line 3 recites, "...combination thereof to said depth".
- Claim 31, line 3 recites, "...combination thereof to said depth".
- Claim 32, line 3 recites, "...cutting sweep to said depth".
- Claim 33, line 3 recites, "...cutting sweep to said depth".
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***Allowable Subject Matter***

Claims 2-4, 6-10, 12-19, 21-23 and 25-40 are allowed.

Regarding independent claims 10, 21, 23, 25 and 34, the closest prior art to the instant invention is Skerret (U.S. Patent No. 4,958,542). Skerret teaches a milling head (10) comprising a cylindrical body (14) having an annular recess, said body adapted to be connected to a rotary milling tool, and one or more cutting blades (40) connected to said body by a securing element, each said blade disposed circumferentially around the rotational axis of the milling head and an arbor (62) for removing an outer radial thickness of a tube (P) to a predetermined depth from the tube end ('542, figures 1-5). However, Skerret fails to anticipate or make obvious the cutting sweep of the blade removing 2%-25% of an outer radial thickness of the tube. Skerret also fails to

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anticipate or make obvious the cutting edge of the blade extending below a lower end of the milling head body.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sara Addisu at (571) 272-6082. The examiner can normally be reached on 8:30 am - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica Carter can be reached on (571) 272-4475. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sara Addisu  
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SA  
9/28/06

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